

PATENT ABSTRACTS OF JAPAN

(11)Publication number : **56-039413**

(43)Date of publication of application : **15.04.1981**

(51)Int.Cl.

G01D 15/18
B41J 3/04

(21)Application number : **54-115140**

(71)Applicant : **RICOH CO LTD**

(22)Date of filing : **10.09.1979**

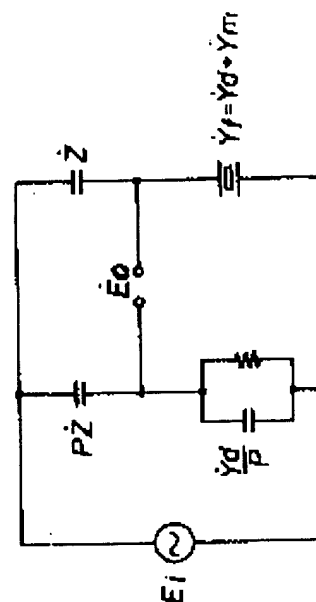
(72)Inventor : **OTA SHUICHI**

(54) INK DETECTOR FOR INK JET RECORDER

(57)Abstract:

PURPOSE: To clearly detect the existence of an ink by electrically excite an electroacoustic transducer element installed inside an ink tank, etc. and detecting a change of the dynamic impedance of load.

CONSTITUTION: The damping admittance of a vibrator is Y_d , and the dynamic admittance Y_m . Then a sufficiently high circuit constant P is selected. The output voltage E_o of bridge circuit represents a value proportional to vibration speed v according to a publicly known formula. If power supply voltage E_i is now kept constant, it is possible to detect a change the acoustic impedance of load passed on a change of output voltage E_o . Thus it can be distinguished whether a liquid or air is touching a vibration plate. Consequently, the faulty case such as seen in the past does not occur that the existence of ink can hardly be determined due to the fouling of a transparent window.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision]